

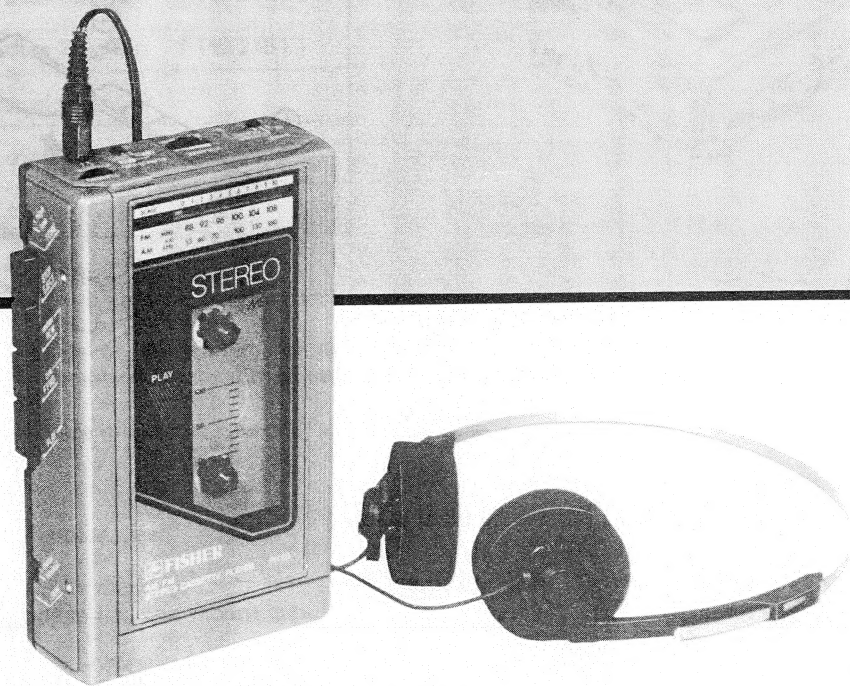
## SERVICE MANUAL



# FISHER

## PH23 (EUROPE)

### Mini AM/FM Stereo Radio Cassette Player



#### SPECIFICATIONS

Frequency range:	AM: 525 — 1605 kHz FM: 87.5 — 108 MHz	Outputs:	Headphones: 32 ohms
Tape:	Metal, normal tape	Output power:	30 mW x 2 maximum
Tape speed:	4.75 cm/sec. (1-7/8 i.p.s.)	Power requirement:	DC: 3V, "AA" (UM-3) battery x 2
Rewind and fast forward time:	Approx. 180 sec. (C-60)	Dimensions (Approx.):	AC adaptor (NT5900, optional) 84(W) x 140(H) x 35.5(D)mm
Frequency response:	40 — 14,000 Hz (metal) 40 — 14,000 Hz (normal)	Weight (Approx.):	355g including batteries

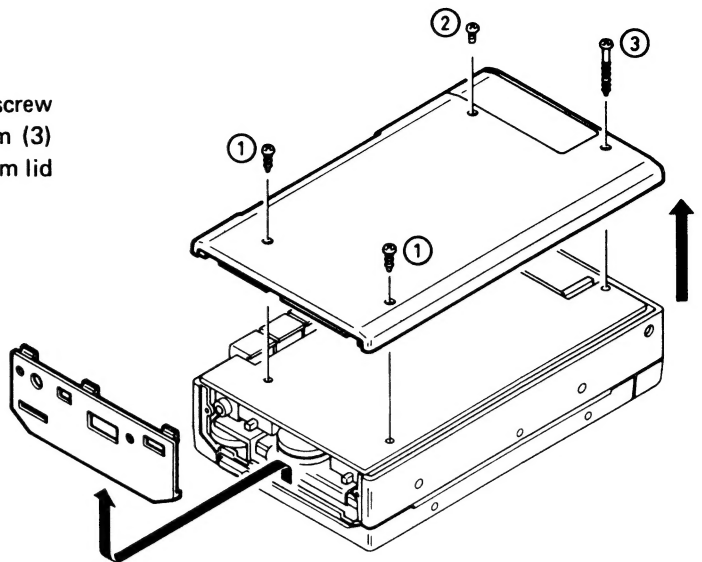
\* Specifications subject to change without notice.

## DISASSEMBLY PROCEDURE

Remove batteries from battery case.

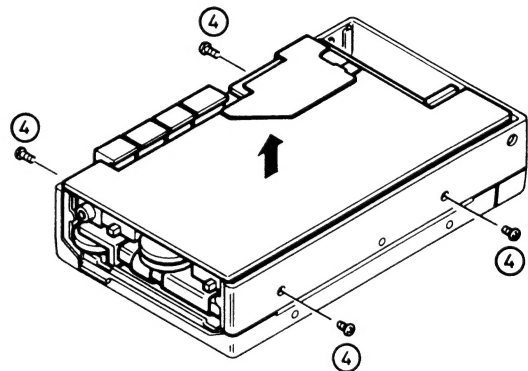
**(1) Remove the Bottom lid and the side panel**

2 pan head tapping screw 2 x 8mm (1) and pan head screw 2 x 8mm (2) and pan head tapping screw 2 x 20mm (3) used to fasten the bottom lid are unscrewed, the bottom lid and the side panel can be removed.



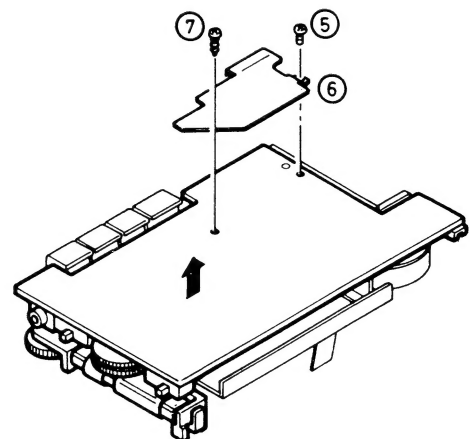
**(2) Remove the Mechanism with P. C. B.**

Unscrew four Special screw (4) used to fix the mechanism.



**(3) Remove the P. C. B.**

1. Unscrew the Special screw (5) and remove a Shield plate (6).
2. Pan head tapping screw 2 x 8mm (7) used to fasten the PCB, the PCB can be removed.

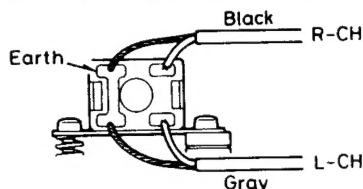


## MECHANISM

### (1) Replacement of head, adjustment of azimuth

Disconnect as shown below, and replace the head.  
After replacing the head, clean the head and erase it by means of head eraser.

Playback an azimuth adjusting tape ( MTT-113 : 6.3KHz, -10dB ), and turn the azimuth adjusting screw with a screwdriver so that the right and left channel outputs may attain the maximum level in both side 1 and 2.



### (2) Check and adjustment of the mechanism unit

Prior to measurement, clean the heads, capstan and pinch roller. Check torque and tension. If they are found within the pertinent range mentioned below, the respective mechanism is normal.

Measuring item	Take-up torque
PLAY	30 ~ 60 gr.cm ( TW-2111 )
F.FWD	more than 75 gr.cm ( TW-2131 )
REW	more than 75 gr.cm ( TW-2131 )
Tape tension	
PLAY	more than 80 gr.cm ( TW-2412 )
Auto stop	
PLAY	20 ~ 30 gr

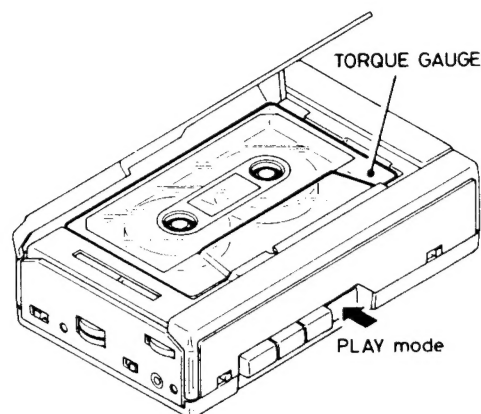
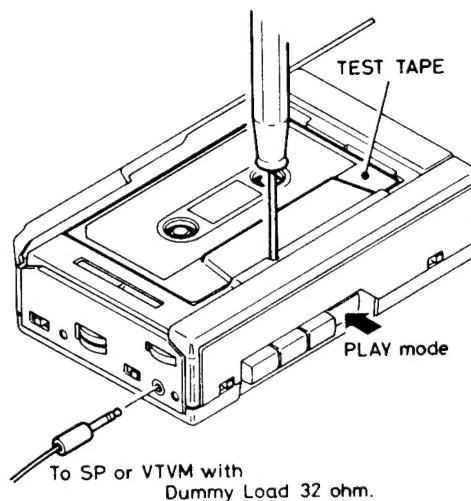
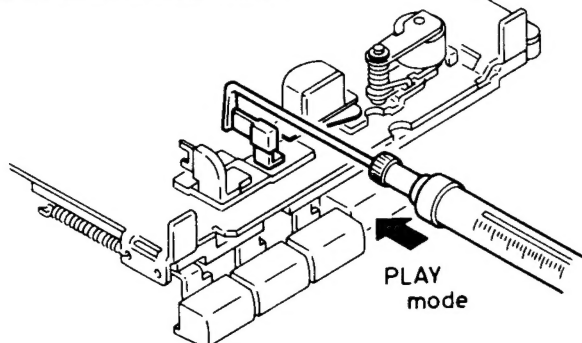
If found outside of the range of the aforementioned measuring item, check the transmission mechanism of each item.

If a defective part is found, replace it with the new one, and then check again.

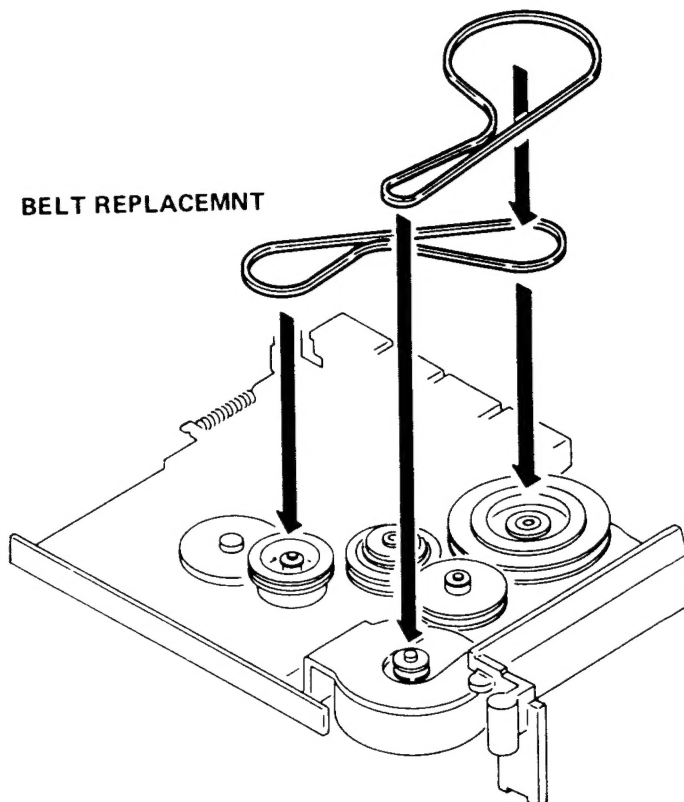
### (3) Check and adjustment of motor speed

1. Check motor number and color marking.
2. Confirm the table of last parts list, and mount appointment resistor ( R601 ).
3. Playback test tape ( MTT-111 : 3KHz, 0 dB, etc. ). Insert a screwdriver from a PCB hole to adjust SVR601 so that the frequency counter reads 3,000 Hz.

#### AUTO STOP ADJUSTMENT



#### BELT REPLACEMENT



## TUNER ADJUSTMENT

### GENERAL ADJUSTMENT CONDITIONS

Standard Output Level: 1.25mW (200mV/32 ohms)

Standard Modulation: AM

400Hz 30% Mod.

FM

400Hz 22.5kHz Dev.

Load Impedance: 32 ohms

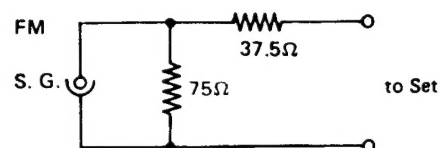
Power Source: DC 3V

Dummy Antenna

AM

I.R.E. Loop

NOTE: Use screwdriver with plastic grip for all adjustment.



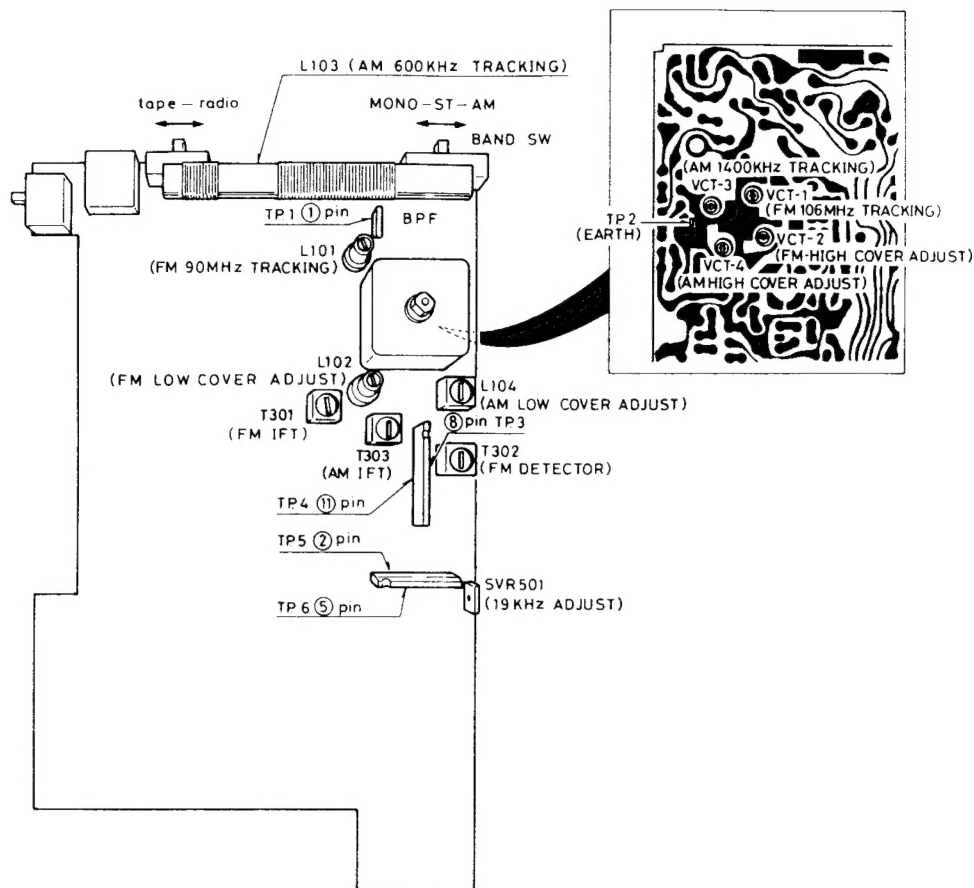
### AM ADJUSTMENT

Step	Adjustment	Connections		Position of Tuning Dial	Parts of Adjustment	Standards of Adjustment	Adjustment for
		Input	Output				
1	I. F.	Connect AM SG to Loop Antenna	Connect V.T.V.M. to PHONES socket through the 32 ohm Load	Near Low End under no signal	T303	460 kHz	Maximum reading on V.T.V.M.
2	Tuning Coverage			Low End	L104	517 kHz	
				High End	VCT-4	1660 kHz	
3	Tracking			600 kHz	L103	Max. Sensitivity	
				1400 kHz	VCT-3	Max. Sensitivity	

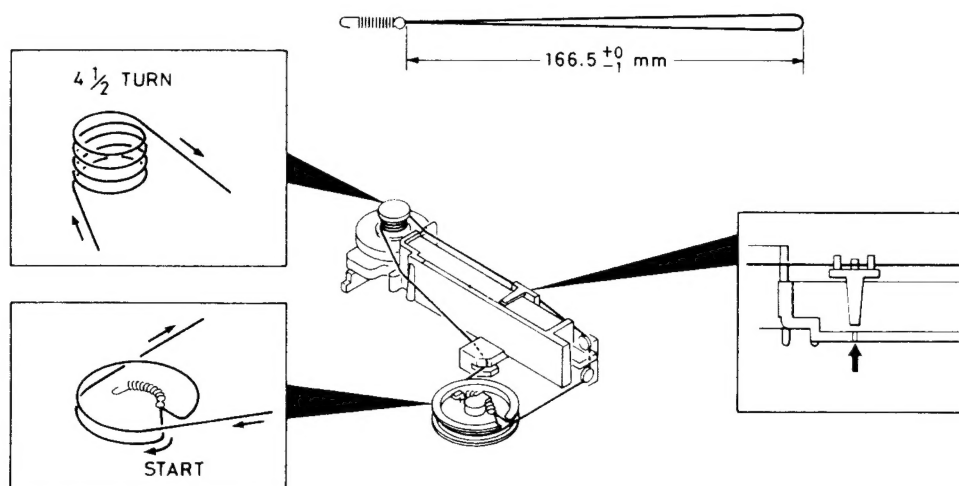
### FM ADJUSTMENT

Step	Adjustment	Connections		Position of Tuning Dial	Parts of Adjustment	Standards of Adjustment	Adjustment for
		Input	Output				
1	Detector	Connect output terminals to FM IF Sweep to TP1, and TP2	Connect input terminals of FM IF Sweep to TP3, and TP4	Near 98 MHz under no Signal	T301 T302	10.7 MHz (Center frequency of Ceramic filter)	Wave form as shown below 
2	Tuning Coverage	Connect FM SG to TP1 and TP2	Connect V.T.V.M. to PHONES socket through the 32 ohm Load	Low End	L102	$87.4 \pm 0.1$ MHz	Maximum reading on V.T.V.M.
				High End	VCT-2	$108.5 \pm 0.2$ MHz	
3	Tracking			90 MHz	L101	Max. Sensitivity	
				106 MHz	VCT-1	Max. Sensitivity	
4	V.C.O.	Connect FM SG to TP1 and TP2 Input : 60 dBμ (Non Mod.)	Connect Frequency Counter to TP5 (H) and TP6	98 MHz	SVR501	$19.00 \pm 0.07$ kHz	Adjust SVR501 to obtain 19.00 kHz display on Frequency Counter

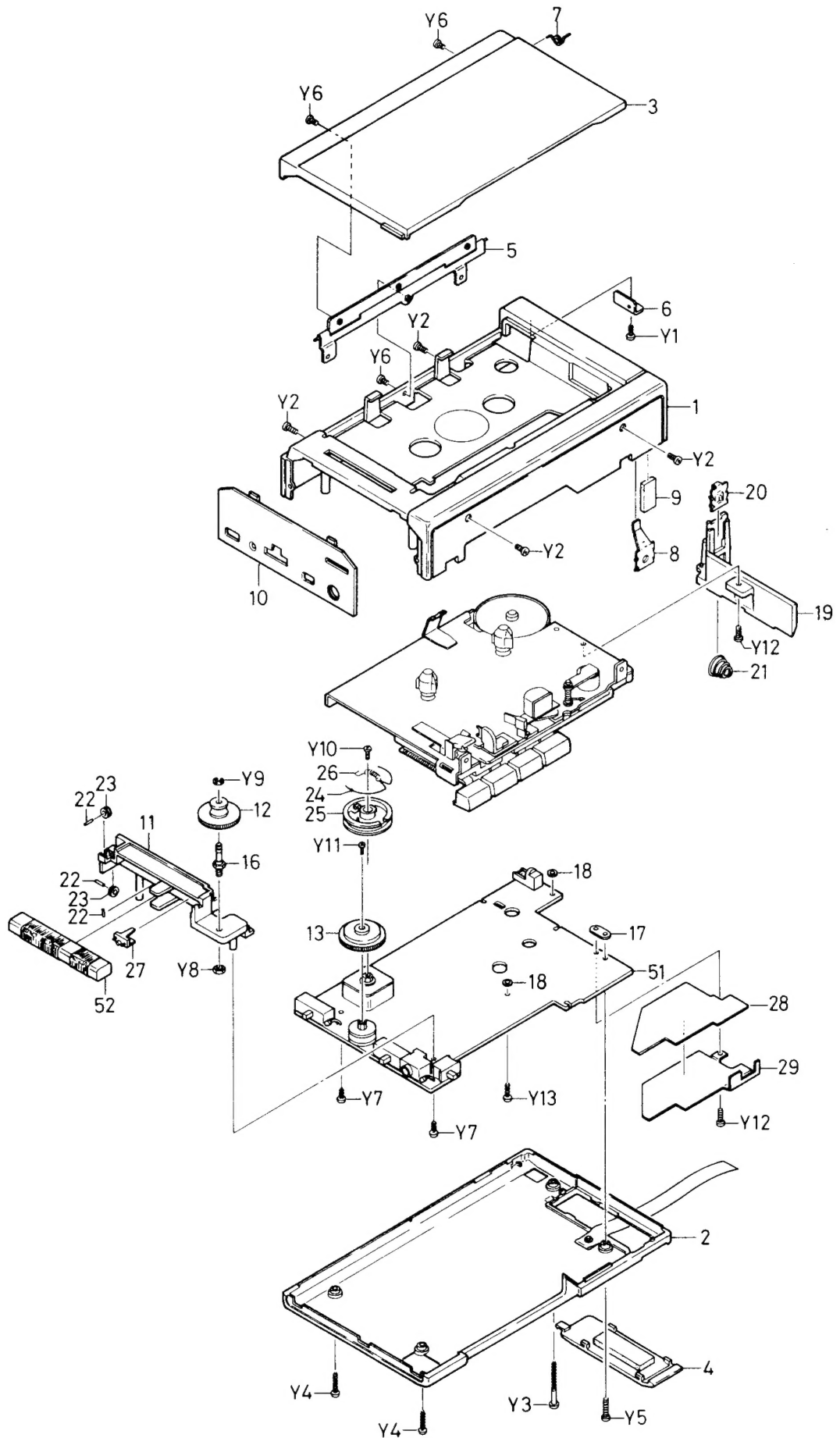
## PARTS LOCATION



## DIALCORD STRINGING



# EXPLODED VIEW (CABINET & CHASSIS)





## PARTS LIST

R : Red Bk : Black PW : White

## PACKING &amp; ACCESSORIES

Ref. No.	Parts No.	Description
	141 6 141T 18512	DISPLAY CARTON
	141 6 409T 06700	INST MANUAL
	141 6 317T 76000	PAD
	141 2 181T 14501	CASE
	141 2 176T 07300	BAND
	141 6 231T 15255	INNER POLYE COVER
	141 6 231T 15250	INNER POLYE COVER
	4 152T 05801	HEAD PHONE ASSY

## CABINET &amp; CHASSIS

Ref. No.	Parts No.	Description
1	141 2 111T 55870	CABINET (BK)
	141 2 111T 55880	CABINET (R)
	141 2 111T 55890	CABINET (PW)
2	141 0 126T 42514	BACK LID ASSY
3	141 0 124T 39106	TOP LID ASSY (R)
	141 0 124T 39107	TOP LID ASSY (PW)
	141 0 124T 39108	TOP LID ASSY (BK)
4	141 0 128T 20101	BATTERY LID ASSY
5	141 0 251T 08100	HINGE ASSY
6	141 2 310T 83000	BRACKET
7	141 2 856T 12000	SRING COIL
8	141 2 336T 22301	TERMINAL BATTERY
9	141 2 447T 25101	CUSHION
10	141 2 123T 07502	SIDE PANEL (R)
	141 2 123T 07532	SIDE PANEL (PW)
	141 2 123T 07542	SIDE PANEL (BK)
11	141 2 311T 44100	CHASSIS
12	141 2 163T 93700	ROTARY KNOB
13	141 2 163T 93800	ROTARY KNOB, VOLUME RIGHT
14	141 2 163T 93900	ROTARY KNOB, VOLUME LEFT
15	141 2 457T 41400	SPECIAL WASHER
16	141 2 754T 40400	SHAFT
17	141 2 247T 13600	SHEET
18	141 2 453T 03101	WASHER
19	141 2 210T 45030	BRACKET
20	141 2 336T 18200	TERMINAL BATTERY
21	141 2 336T 25000	TERMINAL BATTERY
22	141 2 754T 40600	SHAFT
23	141 2 661T 35200	PULLEY
24	141 2 340T 02530	ROPE
25	141 2 538T 14100	DRUM
26	141 2 856T 06800	SPRING COIL
27	141 2 511T 24140	POINTER
28	141 2 247T 13500	SHEET
29	141 2 322T 77800	SHIELD PLATE

## FIXING PARTS

Ref. No.	Parts No.	Description
Y1	BJN2S++2+6+Z1	S T PAN H 2X6Z1
Y2	BJN2S++2+5+C1	S T PAN H 2X5C1
Y3	BJN2S++2+0+ZK	S T PAN H 2X20ZK
Y4	BJN2S++2+8+ZK	S T PAN H 2X8ZK
Y5	BJNBS++2+8+ZK	S M PAN H 2X8ZK
Y6	BS1NS1R72R+C1	S M SP PAN H1 1.7X2.5C1
Y7	BS1BS1R7+5+CP	S T SP PAN H 1B 1.7X5CP
Y8	NJR1S2R6+++Z1	HEXAGON NUT 1
Y9	TJETU+++2++++	ET RING
Y10	BS3NS1R7+3+CP	S M SP PAN H3 1.7X3CP
Y11	BS3NS1R4+5+CP	S M SP PAN H3 1.4X5CP
Y12	141 2 421T 40800	ORDER SCREW

Ref. No.	Parts No.	Description
Y13	BJN2S++2+8+Z1	S T PAN H 2X8Z1

## ELECTRICAL PARTS

Ref. No.	Parts No.	Description
52	4 257T 53400	ANT COIL (L103)
or	4 257T 53471	ANT COIL (L103)

## AMP &amp; TUNER P.C.B. ASSY

Ref. No.	Parts No.	Description
51	141 4 250T 81316	P.C.B. ASSY, AMP & TUNER (MECHANISM TM-G35)
or	141 4 250T 81317	P.C.B. ASSY, AMP & TUNER (MECHANISM TM-G35SK)
or	141 4 250T 81320	P.C.B. ASSY, AMP & TUNER (MECHANISM TM-G35TO)
	141 2 462T 81400	BOSS
	4 240T 30372	SOCKET
	4 235T 93371	SOCKET
	4 224T 23100	VARIABLE CAPACITOR (VC1~4,VCT1~4)
	4 238T 53181	SWITCH, FUNCTION (S701,702,801,901)
or	4 238T 68071	SWITCH, FUNCTION (S701,702,801,901)
	4 238T 52980	SWITCH, TAPE SELECT (S811,911)
or	4 238T 64900	SWITCH, TAPE SELECT (S811,911)
or	4 238T 52980	SWITCH, TONE (S821,921)
or	4 238T 64900	SWITCH, TONE (S821,921)
	4 220T 06600	VARIABLE RESISTOR, MAIN (VR801,901)
T301	4 256T 29330	I.F.T
or	4 256T 29340	I.F.T
T302	4 256T 29430	I.F.T
or	4 256T 29440	I.F.T
T303	4 256T 30830	I.F.T
or	4 256T 30840	I.F.T
L101	4 265T 59200	V.H.F COIL
or	4 265T 59330	V.H.F COIL
L102	4 265T 56400	VHF COIL
L104	4 258T 42930	O.S.C COIL
L701	4 252T 09700	FILTER (CHOKE COIL)
L801	4 253T 15012	FILTER
L901	4 253T 15012	FILTER
CF301	4 256T 86500	I.F FILTER
or	4 256T 86571	I.F FILTER
or	4 256T 86572	I.F FILTER
CF302	4 256T 86671	I.F FILTER
BPF101	4 253T 15500	FILTER
S101	4 238T 53080	SWITCH, BAND
or	4 238T 66600	SWITCH, BAND
SVR501	4 222T 77875	SEMI VARIABLE RESISTOR, 10K
SVR601	4 222T 77875	SEMI VARIABLE RESISTOR, 10K
IC101	S1BA4403++++	IC BA4403 SIP7
IC301	S1BA4228L+S++	IC BA4228L-S DSI18
IC501	S1BA1360++++	IC BA1360 DSI16
IC601	S1LA5522++++	IC LA5522 SIP5
IC701	S1BA3304F++++	IC BA3304F DIP16
IC702	S1BA5204F++++	IC BA5204F DIP16
Q101	SF2K212+++F1+	FET 2SK212 F1
Q301	STC930+D2++C1	TR 2SC930 D2 CONV SP
D101	SDGMA01++++T	DIODE GMA01

# PARTS LIST

Ref. No.	Parts No.	Description	Ref. No.	Parts No.	Description
D301	SDGMA01+++++T	DIODE GMA01	C703	CE++4227MVAKS	ELECT 220MF 4V M V AK
D501	SLSLP114B++RE	LED SLP114B RE	C704	CE++4107MVAKS	ELECT 100MF 4V M V AK
D704	SDGMA01+++++	DIODE GMA01	C705	CE++4227MVAKS	ELECT 220MF 4V M V AK
C101	CC+50200JDSLS	CERAMIC 20PF 50V J D SL	C706	CC+50103ZDZFS	CERAMIC 0.01MF 50V Z D ZF
C102	CC+50200JDSLS	CERAMIC 20PF 50V J D SL	C801	CC+50102KAYB+	CERAMIC 0.001MF 50V K A YB
C103	CC+50220JDCHS	CERAMIC 22PF 50V J D CH	C802	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS
C104	CC+50050CDSLS	CERAMIC 5PF 50V C D SL	or	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5
C105	CC+50150JDCHS	CERAMIC 15PF 50V J D CH	C803	CB+16223NA+Y+	BC CON 0.022MF 16V N A Y
C106	CB+25223MDXRN	BC CON 0.022MF 25V M D XR	C804	CE+50224MVS5S	ELECT 0.22MF 50V M V S5
C107	CB+25103MDXRN	BC CON 0.01MF 25V M D XR	C805	CB+25153MAXR+	BC CON 0.015MF 25V M A XR
C108	CE++4107MVAKS	ELECT 100MF 4V M V AK	C806	CC+50102KAYB+	CERAMIC 0.001MF 50V K A YB
C109	CC+50050CDSLS	CERAMIC 5PF 50V C D SL	C807	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS
C110	CB+25103MDXRN	BC CON 0.01MF 25V M D XR	or	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5
C111	CB+25223MDXRN	BC CON 0.022MF 25V M D XR	C808	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS
C112	CC+50020CDSLS	CERAMIC 2PF 50V C D SL	or	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5
C113	CB+25103MDXRN	BC CON 0.01MF 25V M D XR	C809	CE++4107MVAKS	ELECT 100MF 4V M V AK
C115	CC+50470JDSLS	CERAMIC 47PF 50V J D SL	C810	CB+25103MAXR+	BC CON 0.01MF 25V M A XR
C301	CC+50221KDYBS	CERAMIC 220PF 50V K D YB	C901	CC+50102KAYB+	CERAMIC 0.001MF 50V K A YB
C303	CC+50221KDYBS	CERAMIC 220PF 50V K D YB	C902	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS
C304	CB+25223MDXRN	BC CON 0.022MF 25V M D XR	or	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5
C305	CB+25223MDXRN	BC CON 0.022MF 25V M D XR	C903	CB+16223NA+Y+	BC CON 0.022MF 16V N A Y
C306	CB+25103MDXRN	BC CON 0.01MF 25V M D XR	C904	CE+50224MVS5S	ELECT 0.22MF 50V M V S5
C307	CC+50561KDYBS	CERAMIC 560PF 50V K D YB	C905	CM+25153MM++S	MYLAR 0.015MF 25V M M
C308	CE++4227MVAKS	ELECT 220MF 4V M V AK	C906	CC+50102KAYB+	CERAMIC 0.001MF 50V K A YB
C309	CE++4227MVAKS	ELECT 220MF 4V M V AK	C907	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS
C310	CB+16223NA+Y+	BC CON 0.022MF 16V N A Y	or	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5
C311	CE+50104MVS5S	ELECT 0.1MF 50V M V S5	C908	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS
C312	CB+25103MDXRN	BC CON 0.022MF 25V M D XR	C908	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5
C313	CE+16475MVS5S	ELECT 4.7MF 16V M V S5	C909	CE++4107MVAKS	ELECT 100MF 4V M V AK
C314	CE+16106MVAKS	ELECT 10MF 16V M V AK	C910	CB+25103MAXR+	BC CON 0.01MF 25V M A XR
C315	CB+25103MDXRN	BC CON 0.01MF 25V M D XR	R101	RC +6470JT+++	CARBON T 47 OHM J 1/6W
C317	CB+25223MDXRN	BC CON 0.022MF 25V M D XR	R102	RC +6100JT+++	CARBON T 10 OHM J 1/6W
C318	CE+50225MVAKS	ELECT 2.2MF 50V M V AK	R103	RC +6152JV+++	CARBON V 1.5K OHM J 1/6W
C501	CE+50224MVAKS	ELECT 0.22MF 50V M V AK	R105	RC +6150JV+++	CARBON V 15 OHM J 1/6W
C502	CE+50105MVS5S	ELECT 1MF 50V M V S5	R106	RC +6391JV+++	CARBON V 390 OHM J 1/6W
C503	CE+16475MVS5S	ELECT 4.7MF 16V M V S5	R107	RC +6560JV+++	CARBON V 56 OHM J 1/6W
C504	CN100102JM++S	P P CON 0.001MF 100V J M	R301	RC +6474JT+++	CARBON T 470K OHM J 1/6W
C505	CB+25123MDXRN	BC CON 0.012MF 25V M D XR	R303	RC +6102JV+++	CARBON V 1K OHM J 1/6W
C506	CB+25123MDXRN	BC CON 0.012MF 25V M D XR	R304	RC +6183JV+++	CARBON V 18K OHM J 1/6W
C507	CC+50102MDYBS	CERAMIC 0.001MF 50V M D YB	R310	RC +6330JT+++	CARBON T 33 OHM J 1/6W
C508	CC+50102MDYBS	CERAMIC 0.001MF 50V M D YB	R503	RC +6682JT+++	CARBON T 6.8K OHM J 1/6W
C509	CE+50104MVS5S	ELECT 0.1MF 50V M V S5	R506	RC +6333JT+++	CARBON T 33K OHM J 1/6W
C510	CE+50104MVS5S	ELECT 0.1MF 50V M V S5	R507	RC +6333JT+++	CARBON T 33K OHM J 1/6W
C701	CE6R3476MVKSS	ELECT 47MF 6.3V M V KS	R602	RM +4271JT+HR	METAL T 270 OHM J 1/4W H
or	CE6R3476MVS5S	ELECT 47MF 6.3V M V S5	R811	RC +6100JT+++	CARBON T 10 OHM J 1/6W
C702	CE++4227MVAKS	ELECT 220MF 4V M V AK	R911	RC +6100JT+++	CARBON T 10 OHM J 1/6W

Another parts (SVR601, C601, C602, R601, R603, R604, R605) values are indicate as below table

	141-4-250T-81316 4-222T-77875	141-4-250T-81317 4-222T-77882	141-4-250T-81320 4-222T-77882
SVR601	Semifixed Variable Resistor 10K	Semifixed Variable Resistor 3K	Semifixed Variable Resistor 3K
C601	Electrolytic 4.7 $\mu$ F 25V	Electrolytic 10 $\mu$ F 16V	Electrolytic 10 $\mu$ F 16V
C602	Electrolytic 4.7 $\mu$ F 25V	Electrolytic 4.7 $\mu$ F 25V	Electrolytic 2.2 $\mu$ F 50V
◇ R601	Carbon Resistor 750 ohm $\pm$ 5 % 1/6W	Carbon Resistor 390 ohm $\pm$ 5 % 1/6W	Carbon Resistor 680 ohm $\pm$ 5 % 1/5 %
R603	*Metal Resistor 330 ohm $\pm$ 5 % 1/4W	*Metal Resistor 1K ohm $\pm$ 5 % 1/4W	*Metal Resistor 1.1K ohm $\pm$ 5 % 1/4W
R604	Carbon Resistor 13K ohm $\pm$ 5 % 1/6W	Carbon Resistor 430 $\pm$ 5 % 1/6W	Carbon Resistor 330 ohm $\pm$ 5 % 1/6W
R605	Carbon Resistor 27K ohm $\pm$ 5 % 1/6W	Carbon Resistor 3.3K ohm $\pm$ 5 % 1/6W	Carbon Resistor 3.3K ohm $\pm$ 5 % 1/6W

NOTE : \* marked is Linear Positive Temperature Characteristic Resistor.

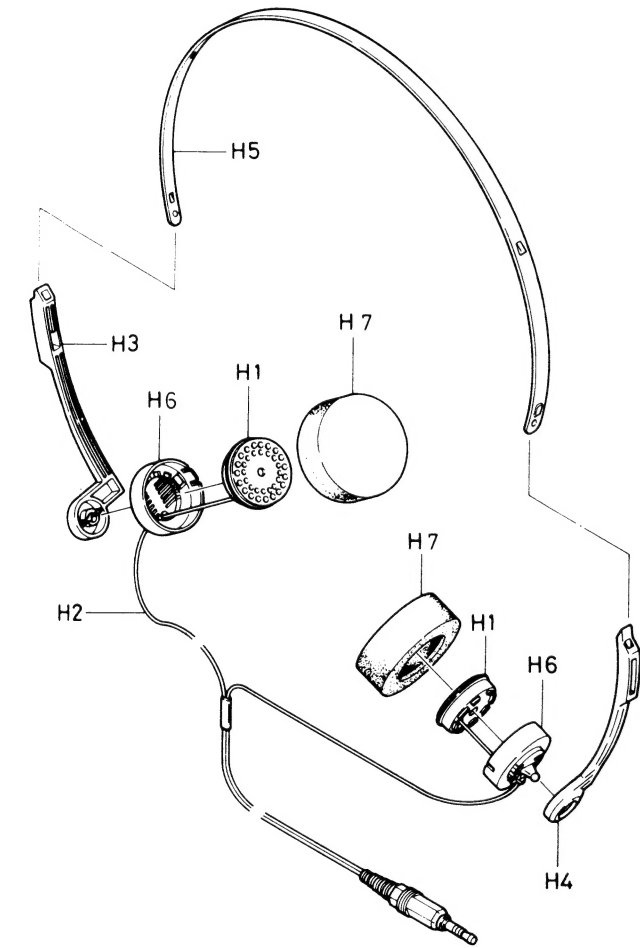
◇ marked are Variable Value by Mechanism Motor number, and now indicate other value.



PARTS LIST & EXPLODED VIEW

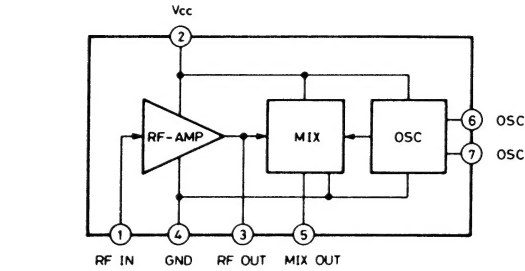
HEADPHONE ASSY

Ref. No.	Parts No.	Description
H1	4 151T 52700	SPEAKER
H2	4 243T 33000	LEAD CORD
H3	141 2 743T 09500	ARM, LEFT
H4	141 2 743T 09400	ARM, RIGHT
H5	141 2 172T 03900	HANGER, HEAD BAND

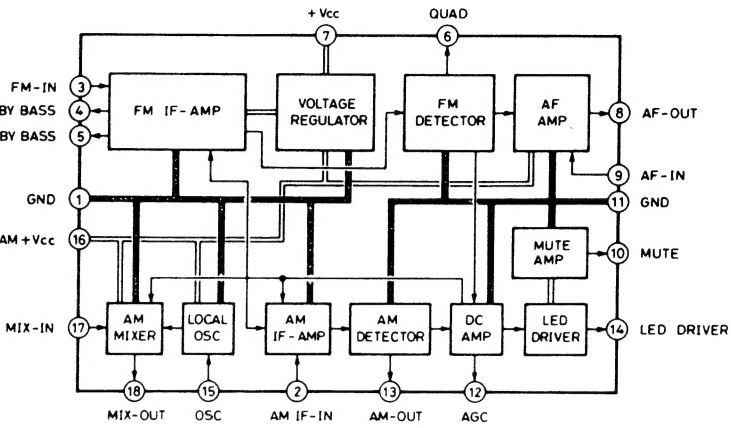


IC BLOCK DIAGRAMS

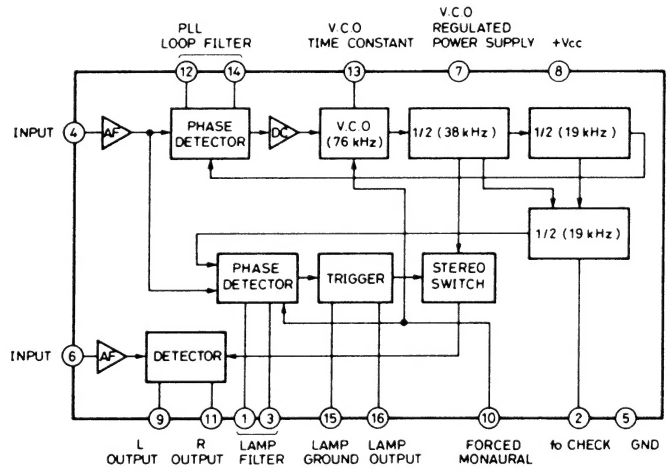
IC101 BA4403  
FRONT END IC



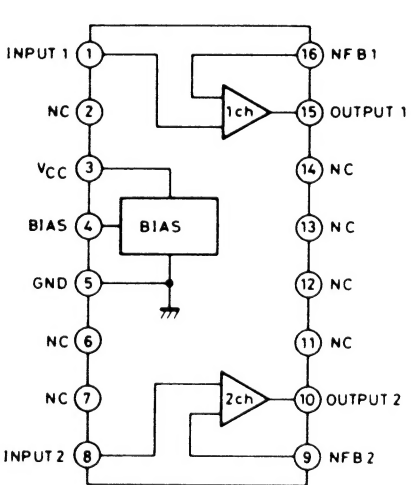
IC301 BA4228L  
LOW VOLTAGE AM/FM IF



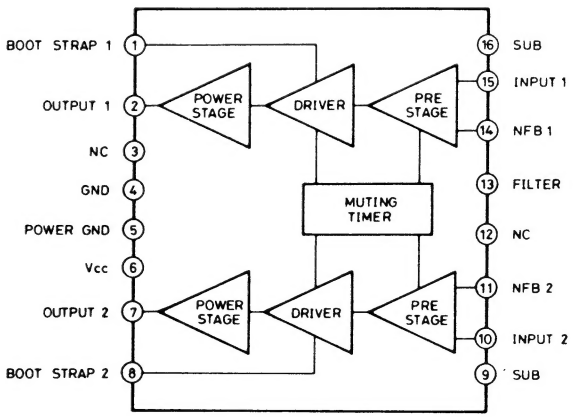
IC501 BA1360  
LOW VOLTAGE STEREO MULTIPLEXER



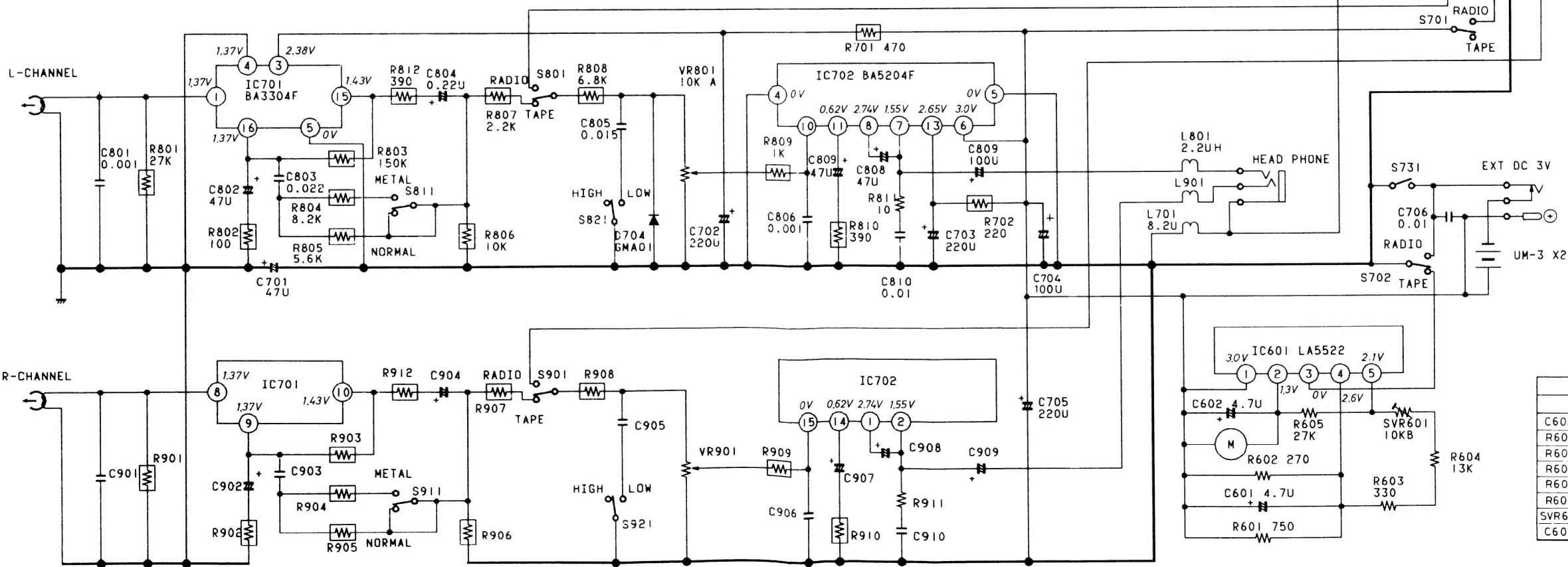
IC701 BA3304F  
DUAL PRE AMP



IC702 BA5204F  
3V HEADPHONE DUAL POWER AMP

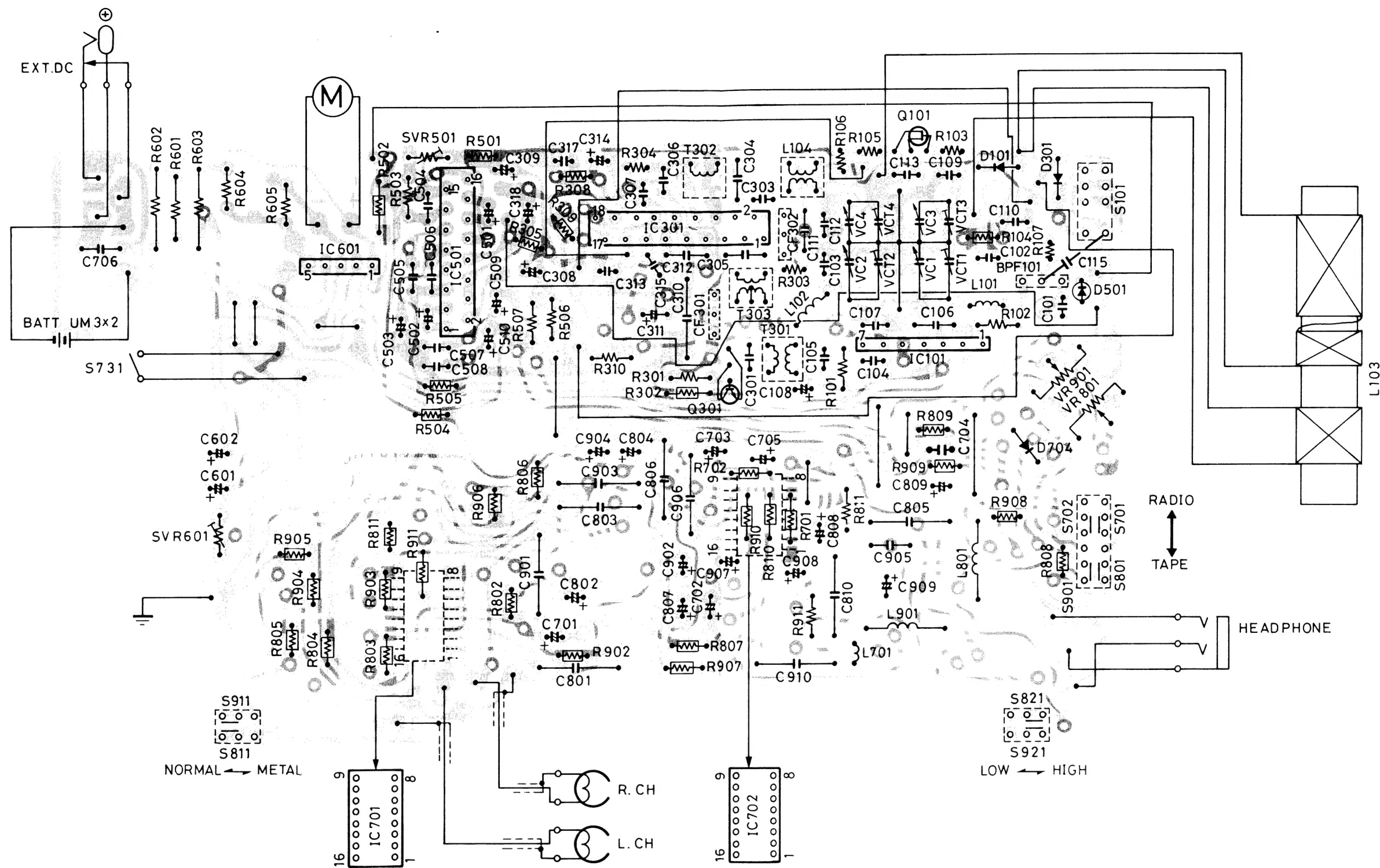


### SCHEMATIC DIAGRAM

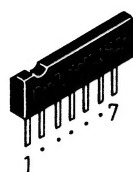


S811,911 --- TAPE SELECT SW (metal / normal)  
S821,921 --- TONE SW (high / low)

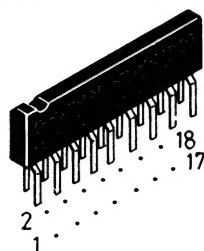
# WIRING DIAGRAM



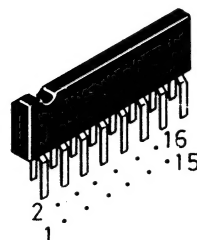
IC101....BA4403



IC301....BA4228



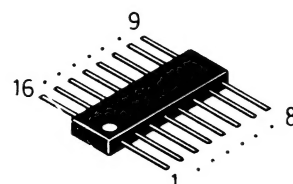
IC501....BA1360



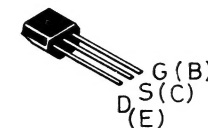
IC601....LA5522



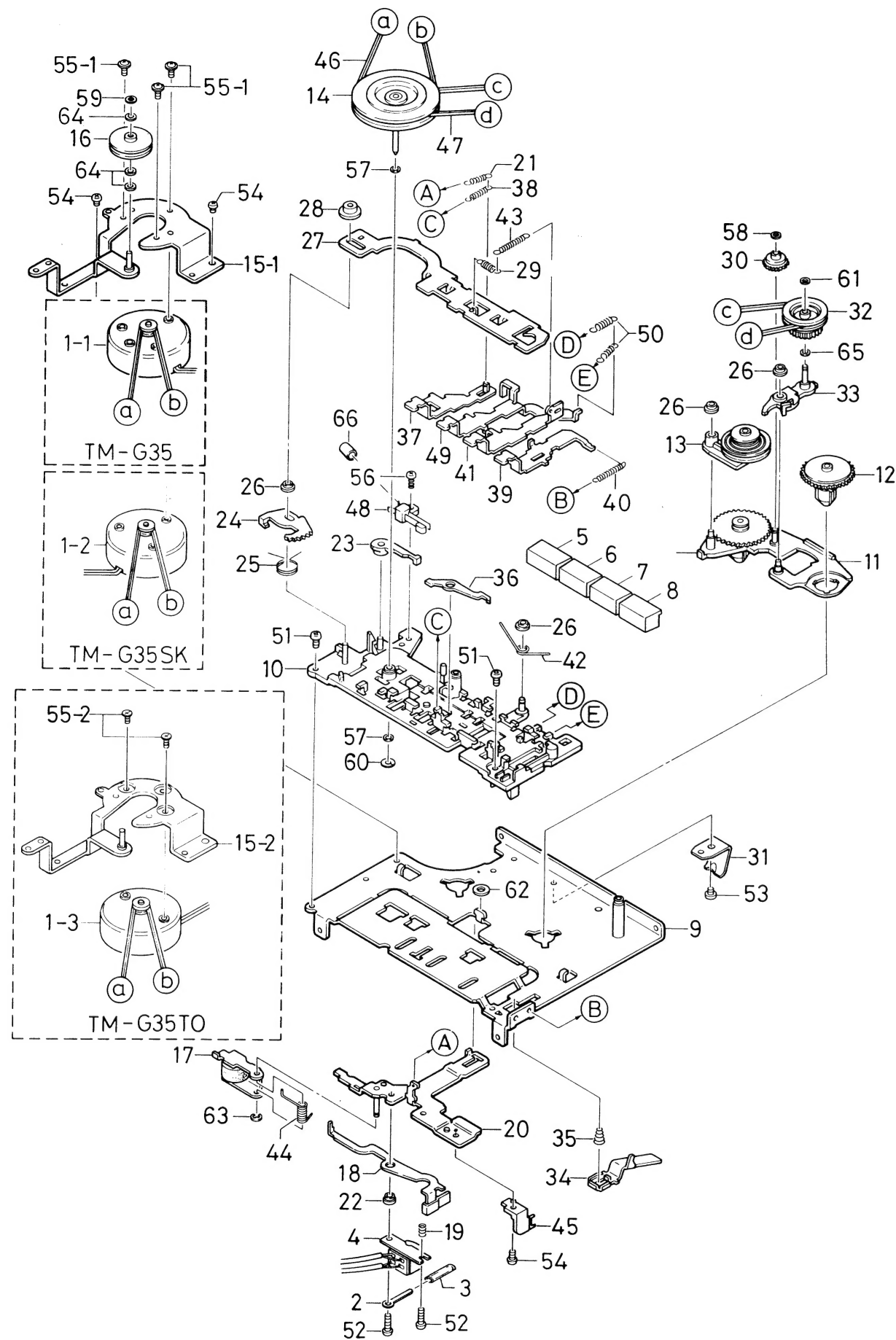
IC701....BA3304F  
IC702....BA5204F



Q101....2SK212F1  
Q301....2SC930D



EXPLODED VIEW (MECHANISM)



PARTS LIST

MECHANISM (TM-G35,TM-G35SK,TM-G35TO)

Ref. No.	Parts No.	Description
1-1	4 527T 21200	COMMUTATE MOTOR (TM-G35)
1-2	4 527T 21371	COMMUTATE MOTOR (TM-G35SK)
1-3	4 527T 23900	COMMUTATE MOTOR (TM-G35TO)
2	141 2 472T 02200	LUG
3	141 2 490T 00600	TUBE
4	4 242T 29471	MAGNETIC HEAD
5	141 2 160T 21900	PUSH BUTTON, PLAY
6	141 2 160T 22000	PUSH BUTTON, FF
7	141 2 160T 22100	PUSH BUTTON, REW
8	141 2 160T 22200	PUSH BUTTON, STOP
9	141 2 311T 44200	CHASSIS
10	141 0 312T 18800	SUB CHASSIS ASSY
11	141 0 210T 45900	BRACKET ASSY
12	141 0 581T 29600	GEAR ASSY
13	141 0 581T 29700	GEAR ASSY
14	141 0 521T 14400	FLYWHEEL ASSY
15	141 0 378T 13700	BRACKET MOTOR ASSY (TM-G35,TM-G35SK)
	141 0 378T 13701	BRACKET MOTOR ASSY (TM-G35TO)
16	141 0 661T 37100	PULLEY ASSY
17	141 0 545T 08500	LEVER PINCH ROLLER ASSY
18	141 0 823T 02600	LEVER GUIDE ASSY
19	141 2 856T 13900	SPRING COIL
20	141 0 732T 12000	SLIDE ASSY
21	141 2 856T 13100	SPRING COIL
22	141 2 462T 76400	BOSS
23	141 2 742T 98200	LEVER
24	141 2 742T 98700	LEVER
25	141 2 852T 81700	SPRING WIRE
26	141 2 461T 45900	PIPE
27	141 2 732T 11900	SLIDE
28	141 2 461T 46000	PIPE
29	141 2 856T 13300	SPRING COIL
30	141 2 581T 29800	GEAR
31	141 2 853T 82600	SPRING PLATE
32	141 2 581T 29900	GEAR
33	141 0 742T 98500	LEVER ASSY
34	141 2 742T 99500	LEVER
35	141 2 856T 13200	SPRING COIL
36	141 2 742T 98400	LEVER
37	141 2 732T 12100	SLIDE
38	141 2 856T 13400	SPRING COIL
39	141 2 732T 12200	SLIDE
40	141 2 856T 13600	SPRING COIL
41	141 2 732T 12400	SLIDE
42	141 2 852T 83300	SPRING WIRE
43	141 2 856T 13800	SPRING COIL
44	141 2 852T 81800	SPRING WIRE
45	141 2 821T 13300	TAPE GUIDE
46	141 2 564T 29100	SQUARE BELT
47	141 2 564T 29200	SQUARE BELT
48	4 238T 61500	SWITCH
49	141 2 732T 12300	SLIDE
50	141 2 856T 13500	SPRING COIL
51	141 2 421T 42300	ORDER SCREW
52	141 2 421T 42400	ORDER SCREW
53	141 2 421T 42500	ORDER SCREW
54	141 2 421T 42600	ORDER SCREW
55	BS1NS1R7+2+Z1	S M SP PAN H1 1.7X2Z1 (TM-G35TO)
	141 2 421T 42700	ORDER SCREW (TM-G35,TM-G35SK)
56	141 2 421T 42800	ORDER SCREW
57	141 2 453T 34700	WASHER
58	141 2 453T 34900	WASHER
59	141 2 453T 35000	WASHER
60	141 2 453T 35100	WASHER
61	141 2 453T 35200	WASHER
62	141 2 453T 35300	WASHER
63	141 2 457T 23800	SPECIAL WASHER
64	141 2 453T 34801	WASHER
65	141 2 453T 30001	WASHER
66	141 2 490T 04800	TUBE, HEAT CONTRACTION

NOTE : When replacing the motor , replace R601 at the same time according to the table below.

Motor number	4-527T-21200	4-527T-21371	4-527T-23900
Colour			
Yellow	470 ohm	300 ohm	—
Green	560 ohm	330 ohm	470 ohm
Colorless	750 ohm	390 ohm	680 ohm
Black	1K ohm	360 ohm	560 ohm
Blue	1.2K ohm	430 ohm	390 ohm
Violet	—	—	—
Brown	—	—	360 ohm
Blue & Blue	—	—	620 ohm
Green & Green	—	—	750 ohm
Black & Black	—	—	820 ohm



**FISHER**

Service/Ersatzteillager:  
FISHER HiFi Europa Vertriebs-GmbH  
Shönstraße 80, 8000 München 90  
Telefon 0 89/23 79-1  
Telex 5-212384 D  
Wenden Sie sich bitte mit technischen  
Fragen an diese Adresse.

Verwaltung, Verkauf und Auslieferungslager:  
FISHER HiFi Europa Vertriebs-GmbH  
Truderingerstraße 13, 8000 München 80  
Telefon 0 89/41 45-0  
Telex 5-24665 D  
5-24033 D